STAT

[redacted]

Ref: 552-0D-197

L5 June 1964

STAT [redacted]

Project 552
Progress Report, May 1964

Gentlemen:

Enclosed are three (3) copies of [redacted] Progress Report on Project 552 for the period May 1964.

STAT

Very truly yours,

STAT [redacted]

President

ARB/de
Encl: (3) P.R. (3 pp)

PROGRESS REPORT

For

VERSATILE, HIGH PRECISION STEREO

POINT TRANSFER DEVICE

Period Covered: May 1964

Dated: 12 June 1964

Job No.: 552

Document No.: OD-195

#552 - OD-195

PROGRESS REPORT
For
VERSATILE, HIGH PRECISION STEREO
POINT TRANSFER DEVICE

Work during the past month has been to finish all design and detailing. Except for high intensity light source and some detailing in electronic cabinets, this goal was met.

OBJECTIVE ASSEMBLY

Additional lenses for low power magnification range has been designed, detailed and released. Interferences have been resolved by careful selection of pivot geometry. The lens is mounted in a spring loaded, rotating mount having a positive stop in the operating position. When lens mount hits an obstacle, it swings under lens turret, allowing interference to pass. When both channels are in other magnification ranges this additional lens does not interfere with the 1 3/16 inch center distance between viewing optical axes. Assembly should be in final alignment procedure during June.

EYEPIECE ASSEMBLY

Assembly was completed, however, changes to augment optical adjustments are in work. Final assembly and alignment procedure should be during June.

#553 - OD-195

SUPERSTRUCTURE AND EYEPIECE SUPPORT

Operation of elevating mechanism has been improved so that resistance witnessed during last curtomer visit has been greatly reduced. Completion and release of supporting linkage is expected during June.

BASE FRAME, CARRIAGE AND DRIVE MOTORS

Torsional damper needed to improve motor starting and achievement of high stepping rates has been released for manufacture and is expected in assembly in June. Improved two-speed transmissions are expected momentarily. Slo-Syn stepping motors are to be received in June. Frame and carriage assembly is now awaiting ball screws from vendor who is having difficulty in holding required backlash and torque levels. All possible assembly work will be done, however, before arrival of ball screws to minimize effect of their delay.

VACUUM PLATENS AND MANIFOLDS

The problem of micro groove depth measurement has been resolved with vendor. His method was not properly calibrated and when corrected, agreed closely with our values. Platens are now being reworked to desired depth, although micro groove visibility is still being resolved. Vacuum manifolds have been designed, detailed and released for manufacture. Several materials have been selected for sealing member in manifolds, many of them are transparent. Final choice will be made after use on completed viewer.

#552 - OD-195

HIGH INTENSITY LIGHT SOURCE

Design not completed on this component, nor have all modifications to light box been sompleted. Detailing will be completed next month.

MAIN CONSOLE AND CONTROL CONSOLE

Final configuration of control panel has been determined and is now in work. Control cabinet is released for manufacture. Auxiliary cabinet that contains vacuum and pressure pump and power supplies is also released for manufacture. Main console has been received and is being readied for installation.

ELECTRICAL SCHEMATICS, WIRING DIAGRAMS

Schematics are completed. Wiring diagrams to be completed in June. Wiring started in many areas.

JOY STICK

Dual joy stick is designed and now in detailing. Knob for ratating pick off axis is located as described last month but will have shaft axis inclined 30 degrees with writing top. The digital readout remains.

Work to be Completed

1. Complete design and detail work
2. Complete all possible subassemblies
3. Continue wiring of system
4. Check and test subassemblies as they are completed